1. An access system (1) with original, authorized access keys (2), the access system (1) and the original access keys (2) comprising pseudo-random generators supplying an identical, secret cryptographic key, an identical cryptographic algorithm and identical numerical sequences, which are usable for mutual authentication in a challenge-response method, wherein, for the purpose of learning one or more additional, non-original access keys (4) comprising a pseudo-random generator supplying equal numerical sequences,

- an authentication is performed at the access system (1) with an original access key (2),
- the access system (1) and an additional access key (4) to be learnt are set to a learning mode,
- the access key (4) to be learnt transmits its individual identifier identifying the access key (4) to the access system (1),
- the access system (1) transmits the secret cryptographic key encrypted by means of a number supplied by its pseudo-random generator to the access key (4) to be learnt, which decrypts and stores this key by means of the same number supplied by its pseudo-random generator, and
- the access system (1) stores the identifier of the learnt access key (4) and performs a mutual authentication with the learnt access key (4) which is subsequently usable as an access key.

2. An access system as claimed in claim 1, characterized in that, after the access system (1) itself has been set to the learning mode, said system sets the access key (4) to be learnt to the learning mode by means of a command.

3. An access system as claimed in claim 1, characterized in that only given, predetermined access keys in the access system (1) are authorized to trigger learning of additional, non-original access keys (4).

4. An access system as claimed in claim 1, characterized in that the cryptographic algorithms provided in the access system (1) and the access keys (2, 4) are used as pseudo-random generators.

5. An access system as claimed in claim 1, characterized in that authorization of newly learnt access keys (4) in the access system (1) can be withdrawn by erasing their identifiers stored in the access system (1) are erased.

6. An access system as claimed in claim 1, characterized in that the access system (1) can be set to the learning mode by means of a predetermined sequence of operations.

7. (amended) Use of the access system as claimed in claim 1 in a motor vehicle.